UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,513	12/20/2007	Torben Melsen	P18557US1	7479

27045   7590   06/07/2011
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EXAMINER
HARLEY, JASON A

ART UNIT	PAPER NUMBER
2468	

NOTIFICATION DATE	DELIVERY MODE
06/07/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
	10/596,513	MELSEN, TORBEN
Office Action Summary	Examiner	Art Unit	
	JASON HARLEY	2468	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *20 April 2011*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-18* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-18* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☐ All   b)☐ Some * c)☐ None of:
         1.☐ Certified copies of the priority documents have been received.
         2.☐ Certified copies of the priority documents have been received in Application No. _____.
         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

This communication is in response to the application filed on 8/20/10 in which claims 1-

18 have been presented for examination.

Claim Rejections - 35 USC § 112

1.   Claim1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with

the written description requirement. The claim(s) contains subject matter which was not

described in the specification in such a way as to reasonably convey to one skilled in

the relevant art that the inventor(s), at the time the application was filed, had possession

of the claimed invention.

2.   The claim limitation "for providing" uses the phrase "means for" or "step for", but it

is modified by some structure, material, or acts recited in the claim. It is unclear

whether the recited structure, material, or acts are sufficient for performing the claimed

function which would preclude application of 35 U.S.C. 112, sixth paragraph, because it

states a DSLAM for providing.

        If applicant wishes to have the claim limitation treated under 35 U.S.C. 112, sixth

paragraph, applicant is required to amend the claim so that the phrase "means for" or

"step for" is clearly **not** modified by sufficient structure, material, or acts for performing

the claimed function.

If applicant does **not** wish to have the claim limitation treated under 35 U.S.C.

112, sixth paragraph, applicant is required to amend the claim so that it will clearly not

be a means (or step) plus function limitation (e.g., deleting the phrase "means for" or

"step for").

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1, 4, 10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Owens et al. U.S. PG Pub No. (2003/0039244) in view of Sundaresan et al.

(2002/0101881).

As to claim 1, Owens teaches an Ethernet Digital Subscriber Line Access Multiplexer

(DSLAM) for providing dynamic service selection and end-user configuration of service

bindings in a digital communication system, said Ethernet DSLAM comprising: means

for receiving login credentials and a service request from an end-user device; means for

authenticating the login credentials through an authentication server (Owens, par 0050,

0051). The paragraph shows a point to point protocol Ethernet network using DSLAM to

provide a service having a means for receiving a user identifier or passwords through a

server for authentication.

Owens show configuring the Ethernet DSLAM to provide an advance service

binding corresponding to the requested service (par 0043-0046), utilizing a plurality of

attributes received from the authentication server including an identification of an

access network for the requested service, and an identification of a Permanent Virtual

Circuit (PVC) associated with the end-user device (par 0005, 0006, 0011-0017, 0024,

0025, 0047, 0048, 0062). The paragraphs show identifying a user's identification of a

local area network and PVC on DSL, and utilizing attributes such as identification of an

access network for the requested service, and an identification of a Permanent Virtual

Circuit (PVC). The paragraphs also show DSLAM is used to provide voice, video, and

data upon subscriber's requests.

Owens also show means for training a bridging network terminal (NT) having a

plurality of PVCs to utilize the identified PVC for sending upstream traffic from the end-

user terminal to the Ethernet DSLAM, said training means including means for sending

initial downstream traffic from the Ethernet DSLAM to the end-user device utilizing the

identified PVC (par 0006, 0012-0017, 0040). The paragraphs show bridging a terminal

to PVCs to utilize upstream and downstream traffic.

Owens fails to show a local DSL loop and utilizing a plurality of attributes

received from the authentication server wherein by configuring the Ethernet DSLAM to

provide the advanced service binding a Broadband Remote Access Server (BRAS) is

no longer needed.

In an analogous art Sundaresan show a local DSL loop (par 0114, 0123) and

wherein a plurality of attributes received from the authentication server wherein by

configuring the Ethernet DSLAM by configuring the Ethernet DSLAM to provide the

advanced service binding a Broadband Remote Access Server (BRAS) is no longer

needed (Sundaresan, par 0014, 0018, 0020, 0023, 0149, 0150). The paragraphs show

the DSLAM provides services using user identity information without BRAS, and using a

local DSL loop.

At the time of the invention it would have been obvious to one of ordinary skill in

the art to combine the teachings of Owens and Sundaresan DSLAM providing the

service prevents a single point of failure, poor downward scalability and poor upward

scalability.

As to claim 4, Owens and Sundaresan convey the Ethernet DSLAM of claim 1, wherein

the means for authenticating includes a RADIUS client that communicates with an

external RADIUS authentication server (Owens, par 0047, 0048). The paragraph shows

the authentication servers use Radius for communication which use shown to separate

or as a single server.

As to claim 10, Claim 10 is a claim to a method to carry out the DSLAM of claim 1.

Therefore claim 10 is rejected under the same rationale set forth in claim 1.

As to claim 13, Claim 13 is a claim to a method to carry out the DSLAM of claim 4.

Therefore claim 13 is rejected under the same rationale set forth in claim 4.

Claim Rejections - 35 USC § 103

3.   Claims 2, 3, 5-9, 11, 12, 14-18 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Owens et al. U.S. PG Pub No. (2003/0039244), Sundaresan et al.

(2002/0101881) in view of Holmgren et al. U.S. Patent No. (7,277,442).

As to claim 2, Owens and Sundaresan describe the Ethernet DSLAM of claim 1,

wherein the end-user device has a Media Access Control (MAC) address (par 0052).

Owens show where the device has a MAC address using DSLAM, and Owens fails to

show the requested service is accessed through a Service Virtual Local Area Network

(S-VLAN), and the Ethernet DSLAM includes means for mapping the S-VLAN for the

requested service to the MAC address for the end-user device.

In analogous art Holmgren show the requested service is accessed through a

Service Virtual Local Area Network (S-VLAN), and the Ethernet includes means for

mapping the S-VLAN for the requested service to the address for the end-user device

(Holmgren, col 1, ln 6-9, col 4, ln 39-50, col 5, ln 45-50). It is shown where a service is

accessed though an S-VLAN and where the Ethernet network includes mapping a

service to an address.

At the time of the invention it would have been obvious to one of ordinary skill in

the art to combine the invention it would have been obvious to one of ordinary skill in

the art to combine the teachings of Owens, Sundaresan and Holmgren because a way

of conserving mapping assignments for internetworking Ethernet and ATM networks by

mapping VLAN identifiers to PVCs.

As to claim 3, Owens and Sundaresan present the Ethernet DSLAM of claim 1,

wherein the means for receiving login credentials and a service request from an end-

user device includes an Ethernet DSLAM (par 0051). The paragraph shows a point to

point protocol Ethernet network using DSLAM. Owens fails to show User Virtual Local

Area Network (U-VLAN) through which the Ethernet communicates with the end-user

device, and the requested service is accessed through a Service Virtual Local Area

Network (S-VLAN), and the Ethernet DSLAM includes means for mapping the S-VLAN

for the requested service to the U-VLAN for the end- user device.

In an analogous art Holmgren show User Virtual Local Area Network (U-VLAN)

through which the Ethernet communicates with the end-user device, and the requested

service is accessed through a Service Virtual Local Area Network (S-VLAN), and the

Ethernet DSLAM includes means for mapping the S-VLAN for the requested service to

the U-VLAN for the end- user device (Holmgren, col 5, ln 39-55). The column shows a

customer VLAN which the Ethernet communicates with to map SVLAN to the customer

VLAN.

At the time of the invention it would have been obvious to one of ordinary skill in

the art to combine the invention it would have been obvious to one of ordinary skill in

the art to combine the teachings of Owens, Sundaresan and Holmgren because a way

of conserving mapping assignments for internetworking Ethernet and ATM networks by

mapping VLAN identifiers to PVCs.

As to claim 5, Owens illustrates an Ethernet Digital Subscriber Line Access Multiplexer

(DSLAM) or providing dynamic service selection and end-user configuration of service

bindings in a digital communication system, said Ethernet DSLAM comprising: a

plurality of subscriber ports for receiving login credentials and service requests from

end-user devices, and for communicating data traffic to and from the end-user devices,

wherein an identified subscriber port communicates with an identified end-user device (Owens, par 0049-0051). The paragraph shows a point to point protocol Ethernet network using DSLAM to provide a service having a means for receiving a user identifier or passwords through a server for authentication.

Owens show a RADIUS client that sends login credentials and a service request from the identified end-user device to an external RADIUS server for authentication and receives a plurality of attributes from the external RADIUS server, and utilizes the attributes to configure the Ethernet DSLAM to provide an advance service binding corresponding to the requested service, and an identification of a Permanent Virtual Circuit (PVC) on a local DSL loop associated with the end-user device a Service Selection Controller that receives the attributes from the RADIUS client (par 0005, 0006, 0016, 0017, 0025, 0043-0047, 0062). From the applicant's specification the service selection controller is located in side the DLSAM. The paragraph shows the authentication servers use Radius for communication and configuring and communicating with an Ethernet DSLAM to provide identification for PVCs on DSL. The paragraphs also show DSLAM is used to provide voice, video, and data upon subscriber's requests.

Owens fails to show a traffic mapper that maps data traffic between a plurality of Service Virtual Local Area Networks (S-VLANs) and the subscriber ports; said attributes including an identification of an S-VLAN through which the requested service is accessed and sends mapping control information to the traffic mapper, thereby enabling

the traffic mapper to establish a service binding between the identified end-user device

and the S- VLAN through which the requested service is accessed.

In an analogous art Holmgren show a traffic mapper that maps data traffic

between a plurality of Service Virtual Local Area Networks (S-VLANs) and the

subscriber ports; said attributes including an identification of an S-VLAN through which

the requested service is accessed and sends mapping control information to the traffic

mapper, thereby enabling the traffic mapper to establish a service binding between the

identified end-user device and the S- VLAN through which the requested service is

accessed (Holmgren, col 1, ln 6-34, col 4, ln 39-50, col 5, ln 45-50). It is shown where a

service is accessed though an S-VLAN, which is also shown to communicate through

an Ethernet network to access Vans on a per port basis, and it is shown where the

Ethernet network includes mapping a service to an address.

At the time of the invention it would have been obvious to one of ordinary skill in

the art to combine the invention it would have been obvious to one of ordinary skill in

the art to combine the teachings of Owens and Holmgren because a way of conserving

mapping assignments for internetworking Ethernet and ATM networks by mapping

VLAN identifiers to PVCs.

Owens and Holmgren fails to show utilizing a plurality of attributes received from

the authentication server wherein by configuring the Ethernet DSLAM to provide the

advanced service binding a Broadband Remote Access Server (BRAS) is no longer

needed.

In an analogous art Sundaresan show wherein by configuring the Ethernet

DSLAM to provide the advanced service binding a Broadband Remote Access Server

(BRAS) is no longer needed (Sundaresan, par 0014, 0018, 0020, 0023) the paragraphs

show the DSLAM provides the advanced service binding.

At the time of the invention it would have been obvious to one of ordinary skill in

the art to combine the teachings of Owens, Holmgren, and Sundaresan DSLAM

providing the service prevents a single point of failure, poor downward scalability and

poor upward scalability.

As to claim 6, Owens, Sundaresan, and Holmgren define the Ethernet DSLAM of claim

5, wherein the service binding is established utilizing the IEEE802. I x protocol. From

applicants specification IEEE802. I x is an integrated part of Windows XP operating

system (Owens, par 0015). The paragraph shows using Windows operating system.

As to claim 7, Owens, Sundaresan, and Holmgren create the Ethernet DSLAM of claim

5, wherein the service binding is established utilizing the Point-to-Point Protocol over

Ethernet (PPPoE) protocol (Owens, par 0008). It is shown utilizing Point-to-Point

Protocol over Ethernet.

As to claim 8, Owens, Sundaresan, and Holmgren expose the Ethernet DSLAM of

claim 5, further comprising a Dynamic Host Configuration Protocol (DHCP) server that

answers DHCP requests sent by the identified end-user device prior to establishment of

the service binding, said DHCP server sending a temporary configuration and a short

lease time to the identified end- user device (par 0019, 0088, 0090). The paragraph

shows using a DHCP server establishing a temporary configuration and having a lease

time to authenticate a user.

As to claim 9, Owens, Sundaresan, and Holmgren explain the Ethernet DSLAM of

claim 8, wherein the DHCP server ignores DHCP requests sent by the identified end-

user device after establishment of the service binding, thereby forcing the end-user

device to broadcast a DHCP discover message which is passed on to a second DHCP

server in the through which the requested service is accessed (Owens, par 0055, 0063,

0065). The paragraphs show sending a broadcast of discover message by a DHCP

server.

Owens fails to show using SVLAN. In analogous art Holmgren shows using

SVLAN (Holmgren, col 4, ln 39-50, col 5, ln 45-50). It is shown where a service is

accessed though an S-VLAN

At the time of the invention it would have been obvious to one of ordinary skill in

the art to combine the invention it would have been obvious to one of ordinary skill in

the art to combine the teachings of Owens, Sundaresan, and Holmgren because a way

of conserving mapping assignments for internetworking Ethernet and ATM networks by

mapping VLAN identifiers to PVCs.

As to claim 11, Claim 11 is a claim to a method to carry out the DSLAM of claim 2.

Therefore claim 11 is rejected under the same rationale set forth in claim 2.

As to claim 12, Claim 12 is a claim to a method to carry out the DSLAM of claim 3.

Therefore claim 12 is rejected under the same rationale set forth in claim 3.

As to claim 14, Claim 14 is a claim to a method to carry out the DSLAM of claim 5.

Therefore claim 14 is rejected under the same rationale set forth in claim 5.

As to claim 15, Claim 15 is a claim to a method to carry out the DSLAM of claim 6.

Therefore claim 15 is rejected under the same rationale set forth in claim 6.

As to claim 16, Claim 16 is a claim to a method to carry out the DSLAM of claim 7.

Therefore claim 16 is rejected under the same rationale set forth in claim 7.

As to claim 17, Claim 17 is a claim to a method to carry out the DSLAM of claim 8.

Therefore claim 17 is rejected under the same rationale set forth in claim 8.

As to claim 18, Owens, Sundaresan, and Holmgren demonstrate the method of claim

14, further comprising the steps of: receiving by the Ethernet DSLAM, a Dynamic Host

Configuration Protocol (DHCP) request from the identified end-user device; determining

by the Ethernet DSLAM, whether the service binding has been established; upon

determining that the service binding has not been established, sending an answer to the

end-user device from a DHCP server in the Ethernet DSLAM (Owens, fig 1, par 0019,

0051, 0052, 0074). The paragraphs show using a DSLAM server to serve and receive

DHCP request and determining that the service whether or not service has been

established.

Owens show wherein the answer includes a temporary configuration and a short

lease time; and upon determining that the service binding has been established,

ignoring the DHCP request, thereby forcing the end-user device to broadcast a DHCP

discover message which is passed on to a second DHCP server through which the

requested service is accessed (par 0019, 0055, 0063, 0065, 0088, 0090). The

paragraph shows using a DHCP server establishing a temporary configuration and

having a lease time to authenticate a user, and sending a broadcast of discover

message by a DHCP server

Owens fails to show using SVLAN. In analogous art Holmgren shows using

SVLAN (Holmgren, col 4, ln 39-50, col 5, ln 45-50). It is shown where a service is

accessed though an S-VLAN

At the time of the invention it would have been obvious to one of ordinary skill in

the art to combine the invention it would have been obvious to one of ordinary skill in

the art to combine the teachings of Owens, Sundaresan, and Holmgren because a way

of conserving mapping assignments for internetworking Ethernet and ATM networks by

mapping VLAN identifiers to PVCs.

Response to Arguments

4.   Applicant's arguments filed 4/20/2011 have been fully considered but they are

not persuasive.

   1) In the Applicant's previous response, it was argued that Owens discloses a

   conventional DSLAM and utilizes a conventional BRAS to configure the

   advanced service binding. At the bottom of page 3 of the Office Action, the

   Examiner states that Owens shows configuring an Ethemet DSLAM to provide an

   advanced service binding in paragraph 0045. However, paragraph 0045 says

   absolutely nothing about an Ethemet DSLAM providing the advanced service

   binding. In fact, paragraph 0045 does not even mention a DS~M. instead,

   paragraph 0045 discusses the BRAS, which the Applicant's claimed invention

   eliminates.

   2) On page 4, next to last paragraph, the Examiner seems to contradict himself by

   stating that Owens FALLS to show an Ethernet DSLAM that receives attributes

   from the authentication server and uses them to provide the advanced service

binding. He contends this is shown by Sundaresan in paragraphs 00t4, 0018,

0020: and 0023.

3) These paragraphs, however, do not relate to this feature. If fact, it seems as
though the Examiner is citing paragraphs from another, totally unrelated
document.

4) Thus, the combination of Owens, which :simply shows the state of the art as
described in the Applicant's Background section, and Sundaresan, which seems
to be totally unrelated to the claimed invention, does not teach or suggest the
claimed invention. Therefore, the withdrawal of the § 103 rejection and the
allowance of claims 1, 4, 10 and 13 are respectfully requested.

The examiner respectfully disagrees Owens show configuring the Ethernet DSLAM to

provide an advance service binding corresponding to the requested service (par 0043-

0046). The paragraphs show DSLAM is used to provide voice, video, and data upon

subscriber's requests.

Also office action states Owens fails to show a local DSL loop and utilizing a

plurality of attributes received from the authentication server wherein by configuring the

Ethernet DSLAM to provide the advanced service binding <u>a Broadband Remote Access</u>

<u>Server (BRAS) is no longer needed</u>. Owns disclose DSLAM providing a services

utilizing a server and in Sundaresan doesn't disclose the use of a BRAS server

therefore it is not a contradiction.

The rationale to modify or combine the prior art does not have to be expressly

stated in the prior art; the rationale may be expressly or impliedly contained in the prior

art or it may be reasoned from knowledge generally available to one of ordinary skill in

the art, established scientific principles, or legal precedent established by prior case

law. Please review MPEP 2144 (I.).

5) Applicant argues the Examiner relies on the combination of Owens and

   Sundaresan for showing the limitations of base claims 1 and 10 from which

   claims 2, 3, 1t, and 12 depend. However, as noted above, Owens and

   Sundaresan fail to disclose or suggest the limitations of the base claims.

   Hotmgren is cited for showing limitations recited in the dependent claims, but

   also fails to disclose or suggest an Ethernet DSLAM configured to provide an

   advanced service binding for a requested service utilizing a plurality of attributes

   received from an authentication sewer. Claims 2, 3, 11, and 12 depend from

   base claims 1 or 10 and recite further limitations in combination with the novel

   and unobvious elements of claims t and 10. Therefore, the allowance of claims 2,

   3, 11, and 12 is respectfully requested.

6) Independent claims 5 and 14 also recite an Ethemet DSLAM configured to

   provide an advanced service binding for a requested service utilizing a plurality of

   attributes received from an authentication server: These limitations are not taught

   or suggested by the combination of Owens, Sundaresan, and Holmgren.

Therefore, the withdrawal of the § 103 rejection and the allowance of

independent claims 5 and 14 are respectfully requested,

7) Claims 6-9 and 15-18 depend from base claims 5 and 14, respectively, and recite

further limitations in combination with: the novel and unobvious elements of their

base claims. Therefore, the allowance of claims 6-9 and 15-18 is respectfully

requested.

The examiner respectfully disagrees Owens show configuring the Ethernet DSLAM to

provide an advance service binding corresponding to the requested service (par 0043-

0046). The paragraphs show DSLAM is used to provide voice, video, and data upon

subscriber's requests.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JASON HARLEY whose telephone number is (571)270-

5435. The examiner can normally be reached on Monday- Friday 7:00 am-4:30pm

EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Joe Cheng can be reached on (571)272-4433. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JH
/IAN N. MOORE/
Supervisory Patent Examiner, Art Unit 2469